

CLAIMS:

1. A device for receiving an analog signal having a spectrum situated in a given frequency band higher than a reference band centered around zero, referred to as the baseband, the device comprising:

- reception means which manage at least one narrow-band noise signal located around a given noise frequency, comprising a plurality of parallel baseband conversion means defining a plurality of reception channels for converting the spectrum of the signal received into reception bands close to the baseband and shifted relative to one another so that, on each reception band, the narrow-band noise signal is superimposed on the shifted spectrum of the signal received at distinct points relative to said spectrum, and
- recombination means for constructing, from the many shifted spectra of the received signal on each reception channel, a single spectrum corresponding to the spectrum of the received signal with the effect of the narrow-band noise removed and situated in a frequency band close to the baseband.

2. A device as claimed in Claim 1, in which the baseband conversion means are designed to shift the spectrum of the received signal symmetrically with respect to the zero frequency.

3. A device as claimed in Claim 1, in which the reception means manage a single narrow-band noise signal located around a given noise frequency and comprise, on a first reception channel, first baseband conversion means for converting the spectrum of the received signal in a first reception band close to the baseband centered around a first reception frequency and on a second reception channel, second baseband conversion means for converting the spectrum of the received signal in a second reception band close to the baseband centered around a second reception frequency and shifted with respect to the first reception band by a frequency interval equal to the difference between said first and second reception frequencies, and in which the recombination means comprise:

- on one of the two channels, filtering means for filtering the received signal in a first frequency band around the noise frequency,

- on the other channel, shifting means for shifting the spectrum of the received signal by said difference between the first and second reception frequencies, and filtering means for filtering the received signal outside a second frequency band centered around said noise frequency,
- addition means for adding the signals coming from said first and second reception channels.

4. A device as claimed in Claim 2, in which the reception means comprise, on a first reception channel, first baseband conversion means for converting the spectrum of the received signal and a first reception band close to the baseband centered around a first reception frequency shifted with respect to said noise frequency by a predefined positive difference and on a second reception channel, second baseband conversion means for converting the spectrum of the received signal in a second reception band close to the baseband centered around a second reception frequency shifted with respect to said noise frequency by a predefined negative difference equal in absolute value to said predefined positive difference, and in which the recombination means comprise:

- on the first channel, first filtering means for filtering the received signal in a first frequency band around the noise frequency and shifting means for shifting the spectrum of the filtered signal by said predefined negative difference,
- on the second channel, second filtering means for filtering the received signal in a second frequency band around the noise frequency and shifting means for shifting the spectrum of the filtered signal by said predefined positive difference,
- addition means for adding the signals coming from said first and second reception channels.

5. A digital television receiver comprising a device as claimed in one of Claims 1 to 4.

6. A multimedia receiver comprising a device as claimed in one of Claims 1 to 4.

7. A transmission system comprising at least one emitter intended to emit electrical signals, a transmission network for transmitting said signals, and a receiver as claimed in one of Claims 5 or 6 for receiving said signals.

8. A reception method for receiving an analog signal having a spectrum situated in a given frequency band higher than a reference band centered around zero, referred to as the baseband, the method comprising:

- a reception step which manages at least one narrow-band noise signal located around a given noise frequency, comprising a plurality of baseband conversion steps performed in parallel defining a plurality of reception channels for converting the spectrum of the received signal in reception bands close to the baseband and shifted with respect to one another so that, on each reception band, the narrow-band noise signal is superimposed on the shifted spectrum of the received signal at distinct points relative to said spectrum, and

- a recombination step for reconstructing, from the many shifted spectra of the received signal on each reception channel, a single spectrum corresponding to the spectrum of the received signal with the effect of the narrow-band noise removed and situated in a frequency band close to the baseband.

9. A reception method as claimed in Claim 7, in which the parallel baseband conversion steps are designed to shift the spectrum of the received signal symmetrically with respect to said given noise frequency.

10. A program containing instructions for implementing a reception method as claimed in one of Claims 7 or 8 when it is executed by a processor.